

REMARKS

The present Amendment is responsive to the Office Action mailed on October 7, 2011.

The Office Action objects to claims 4, 5, 9 and 10 and rejects claims 1 and 3-10 under 35 USC §103(a) over US Patent No. 5,437,044 to Hohner, et al. (Hohner) in view of US Patent No. 5,333,277 to Searls (Searls).

In response to the objections, applicant amends "second data-processing control unit (6)" to "data-processing control unit (6)," and amends "first data-processing control unit" to "control unit for function assignment," where necessary to address the Examiner's comments. Applicant respectfully requests withdrawal of the claim objections, therefore.

To support the rejections under §103(a), the Examiner asserts that Hohner discloses a memory-programmable control (SPS) 10 for coupling to a data interface of a PC 19 including a user interface (keyboard) 23 and control unit for function assignment, the SPS including input/output means, i.e., keys for tripping machine functions [operating unit 12; Fig. 1; col. 3, line 52; keypad 13] embodied as pushbuttons, where each key is electrically connected directly to one each of the SPS inputs [plug 15; col. 3, lines 55-56] *at the same time that the PC is coupled to the SPS* [both can be connected; col. 2, lines 62-66];

wherein one of a plurality of key levels (stored in memory in the PC) for the pushbuttons (keys 13) is selectable from the PC 19 user interface [keys 23; col. 4, lines 16-21] and a control unit for flag assignment connected directly to the SPS inputs and thus to the external pushbuttons 13 *and* to the PC via the data

interface for receiving information about a key allocation of the pushbuttons 13 in a particular key level upon selection [key blinks on actuation; col. 5, lines 10-12] and links this information with a pushbutton signal applied to an SPS input [keyboard 23 for key functions of keypad 13; col. 4, lines 59-61], and

wherein upon selection of the keys, a respective surface function of the PC, stored in the memory and assigned to both the machine function and to the key's respective key allocation is tripped [left upper part of keypad 23 implements keyboard 13 functions of operating unit 12; col. 4, lines 66-68].

The Examiner then asserts that Hohner does not teach keys 13 connected in parallel to the SPS inputs and the internal PC bus, Searls teaches peripherals connected in parallel to one another and to a PC [col. 17, lines 38-39] and that it would have been obvious to modify Hohner to include Searl's SCSI port in the control unit and the programming device, essentially because parallelism is good.

Applicant respectfully disagrees.

Keys 13 of Hohner's operating unit 12 are connected via cable 16 and multipole plug into sock 11 of SPS 10. Hohner at col. 2, line 60-col. 3, line 3, states that operating unit 12 and PC 19 may be connected to the SPS 10 in parallel, wherein both programming and subsequent testing of the modified program is controlled by keys 23 of PC 19. At col. 3, lines 4-10, Hohner states that the aforementioned programming mode is different from operating mode, and that switching between programming and operating modes is controlled by keys 23 of PC 19.

Hohner, therefore, cannot be said to meet the limitation that upon selection of the keys 13, a respective surface function of the PC, stored in the memory and assigned to both the machine function and to the key's respective key allocation, simultaneously, is tripped. There is no Hohner operation where keys 13 trip a function stored in the PC 19 assigned to both the machine function and the key's 13 respective key allocation.

Hohner at col. 4, lines 66-68, describes programming mode operation wherein the function of the keys 13 are implemented using certain keys 23, as shown in display 21 in Fig. 1, for testing. That is, keys 23 emulate operation of keys 13 to control SPS 10. But again, allowing keys 23 of PC 19 to operate as proxies for keys 13 during programming mode is not equivalent to operation in which upon selection of keys 13, a respective surface function of the PC, stored in memory and simultaneously assigned to both the machine function and to the key's (13) respective key allocation, is tripped. After programming, the program is loaded down to the SPS for operation, where keys 13 trip the function in SPS 10, only.

In order to more clearly distinguish this feature within claim 1, applicant amends the last clause to read:

wherein upon selection of any of the keys (T1 through Tn), a respective surface function (5) of the PC, stored in the memory and simultaneously assigned to both the machine function and to the key's respective key allocation is tripped.

Hohner's SPC 10 is not meant to operate in conjunction with PC 19 during intended machine control operation so cannot be said to disclose a control unit

for flag assignment (in SPC 10) connected directly to the SPS inputs (keyboard 12/keys 13) **and** to the PC 19 via the data interface to receive information about a key allocation of the pushbuttons upon selection.

Searls teaches a bus that allows for parallel connection to multiple drives of a RAID group. Searls does not teach or suggest (a bus for) connecting operating unit keys in parallel to a control device (e.g., an SPS) and a programming device (e.g., a PC).

For that matter, it makes sense that Hohner's keys 13 are not connected in parallel to the SPS 10 inputs and an internal bus of PC 19 because PC 19 is not configured to be responsive in any way to the key inputs 13 to the SPC 10. Hence, it would not have been obvious to modify Hohner as taught by Searls, and assuming for arguments sake that the skilled artisan would have considered doing so, such modification would not realize the invention as claimed.

Amended independent claim 1 and claims 3-10 that depend from claim 1 are therefore non-obvious under 35 USC §103(a) over Hohner in view of Searls, and applicant respectfully requests withdrawal of the rejections thereunder.

Accordingly, the application as amended is believed to be in condition for allowance. Action to this end is courteously solicited. However, should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call in order to discuss appropriate claim language that will place the application in condition for allowance.

Respectfully submitted,
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